

NISTTech

Temperature Calibration Wafer for Rapid Thermal Processing using Thin-Film Thermocouples

Abstract

A thin-film thermocouple is provided which can be used at temperature of up to 900° C. The thin-film thermocouple includes: a silicon substrate; an SiO₂ diffusion barrier layer formed on the substrate; a titanium oxide adhesion layer formed on the diffusion barrier layer; a palladium thin film formed on the diffusion barrier layer; and a platinum thin film formed on the diffusion barrier layer and overlapping a portion of the palladium thin film to form a thermocouple junction.

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References

- Expired Patent # 6,037,645
- Docket: 97-021US

Status of Availability

This technology is available in the public domain. Please contact NIST's Office of Technology Partnerships for more information.

Last Modified: 12/30/2009